



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,372	07/15/2003	Ian Boddy	71486-0051	1371
20915	7590	03/15/2005	EXAMINER	
MCGARRY BAIR PC 171 MONROE AVENUE, N.W. SUITE 600 GRAND RAPIDS, MI 49503			JUBA JR, JOHN	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 03/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/604,372

Applicant(s)

BODDY, IAN

Examiner

John Juba, Jr.

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,15,17-26 and 29-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41-43 is/are allowed.
- 6) ☒ Claim(s) 1,3-9,15,17,24,25 and 29-35 is/are rejected.
- 7) ☒ Claim(s) 18-23, 26, 36-40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

The specification is objected to for the use of the trademark ChronoTherm™ without an appropriate identifier (para. [0004], line 4). It should be capitalized (or otherwise identified as a trademark) wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 15, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Monter, et al (U.S. Patent number 4,942,286). Beginning with claim 15, and referring to the text in Column 4 (lines 43-60), Monter, et al disclose a heater element for a vehicular mirror wherein the heater element comprises a generally laminar body having a perimeter of a large sheet, and wherein the perimeter is selectively sizable (die-cut) to conform to a size of a selected one of a plurality of mirrors, namely the one under

Art Unit: 2872

construction. Further, to the extent that it *may be* held that the large sheet of Monter, et al is not a "heater element" until it is provided with connection lugs or other structure [and the examiner believes that the disclosed sheet *does* fairly constitute a heater element within the specificity recited], then it is clear that the heater element formed by die-cutting and terminating is *inherently* sizable (capable of being made smaller) to conform to a size of a selected one of a plurality of smaller mirrors.

With regard to claims 15 and 29, Monter, et al anticipate a method of manufacturing a vehicular mirror assembly comprising a mirror housing for a truck (Col. 4, line 5) or automobile ("cowling" not shown; Col. 2, line 36), a heater element (25), a mounting plate (12), and a selected one of a plurality of various-sized mirrors (18; e.g., for a truck or automobile), the method comprising the steps of selectively sizing the heater element to conform with the size of the selected one of the plurality of various-sized mirrors, and mounting the heater element (25) within the housing (not shown) adjacent to the mirror (18), as seen in Figure 1.

Claims 15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by NAVARRA DE COMPONENTES ELECTRONICOS (FR 2,666,717 A1; hereinafter "NAVARRA"). Referring to the figures and the English-language translation supplied by Applicant, NAVARRA disclose a heater for a vehicular mirror wherein the heater comprises a generally laminar body (transparent support layer and patterned layer), the body having a crenulated perimeter, wherein the perimeter of the heater element is selectively sizable to conform to a size (*i.e.*, the "dimensions") of a selected one of a

Art Unit: 2872

plurality of mirrors. NAVARRA uses the expressions "shape of the surface" and "dimensions of the surface" independently. The examiner believes that one of ordinary skill would understand these as references to the surface figure and surface size (proportions), respectively. The expression "curved shape" in the Brief Description of Figure 4, clearly refers to a curved perimeter. It is clear the slits permit the conductors to be distorted and the space therebetween to be stretched or compressed in length. Thus, the heater element is *inherently* sizeable to the extent recited.

With regard to claim 17, where the length is stretched, the perimeter is also stretched.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 – 9, and 29 – 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over NAVARRA (FR 2,666,717 A1), in view of VERRERIES HIRTZ SA (GB 2,250,406 A). NAVARRA disclose a heater element being formed from a sheet of heat conductive material (e.g., the dielectric support) having a crenulated perimeter, wherein the crenulated perimeter is sizable by distortion of the conducting elements. The heater element is clearly for performing at least a defogging operation on the mirror. As set forth above, NAVARRA disclose the heater element substantially as

Art Unit: 2872

claimed. However, NAVARRA do not disclose a housing or a mounting plate arranged as recited.

In the same field of endeavor, VERRERIES HIRTZ disclose a flexible heater element for an automotive mirror. VERRERIES HIRTZ teach that it is customary to dispose a heated automotive mirror assembly within a housing, to protect the mirror element. In order to facilitate mounting and adjustment of the mirror within the housing, VERRERIES HIRTZ teach the provision of a mounting plate (19) in register with the mirror, with the heater element mounted adjacent the mirror to the mounting plate within the housing. Further, VERRERIES HIRZT teaches that the purpose of heater elements in vehicle rear view mirrors is to perform both defogging and defrosting operations on the mirror.

It would have been obvious to one of ordinary skill to provide a mounting plate and housing for the heated mirror of NAVARRA, in the interest of protecting the mirror element with the housing, and in the interest of facilitating mounting and adjustment of the mirror within the housing, as suggested by VERRERIES HIRTZ. In accordance with the latter teaching, the elements would have been arranged as recited. Further, it would have been obvious to one of ordinary skill to provide the heater element of NAVARRA in a manner to perform both a defogging and a defrosting operation on the mirror, since VERRERIES HIRTZ teach that this is the usual purpose of such heating elements.

With particular regard to method claims 29, *et seq.*, NAVARRA fairly teaches the method steps, short of mounting the heater element in the housing adjacent the mirror. VERRERIES HIRTZ fairly suggest the additional step of mounting the heater element

Art Unit: 2872

adjacent the mirror within a housing. Thus, it would have been obvious to one of ordinary skill to perform the additionally recited steps, in the interest of protecting the heated mirror, as fairly suggested by VERRERIES HIRTZ.

Claims 24, 25, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over NAVARRA and VERRERIES HIRTZ, and further in view of Holzer, et al (U.S. Patent number 5,099,104). As set forth above for claim 15, NAVARRA and VERRERIES HIRTZ discloses the invention substantially as claimed, including provision of a "mounting plate" within the specificity recited. However, NAVARRA and VERRERIES HIRTZ do not disclose the heater element as being wrapped around one edge of the mounting plate.

In the same field of endeavor, Holzer, et al disclose a heater element to be mounted to a support plate of glass. Referring to the discussion of Figure 5, Holzer, et al teach that a convenient means of electrically connecting to the heater element can be provided by wrapping the heater element around at least one edge of the support plate, and terminating the element with a lug. A profile frame (16) clamps the assembly securely together for installation.

It would have been obvious to one of ordinary skill to wrap the heater element around at least one edge of the support plate of NAVARRA and VERRERIES HIRTZ, in the interest of providing a convenient and secure lug for electrical connection of the heater element, as suggested by Holzer, et al.

With regard to claims 25 and 35, the profile frame (16) of Holzer, et al is fairly suggestive of a "bezel". Thus, it would have been obvious to one of ordinary skill to provide a bezel clamping the wrapped edge as recited, in the interest of providing a secure mechanical assembly with means for mounting, as suggested by Holzer, et al.

Allowable Subject Matter

Claims 41, 42, and 43 are allowable over the prior art. Claims 18 – 23, 26, and 36 – 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter:

The prior art, taken alone or in combination, fails to teach or fairly suggest

the *combination*, particularly wherein a rolled seam is provided cooperating as recited in claims 41, 26, and 36; or

the *combination*, particularly wherein the heater element is provided as an elliptical spiral, in the manner recited in claims 42, 43 and 38; or

the *combination*, particularly wherein the row of spaced-apart penetrations is located on the laminar body and contained *wholly inwardly* from the perimeter, as recited in claim 18.

Response to Amendment

Applicant's amendment is sufficient in overcoming the claim objections noted in the last Office action.

Applicant's amendment of claims 15 and 17 is not sufficient to distinguish over the prior art, and the rejection of claims 15 and 17 as being anticipated by NAVARRE (FR 2,666,717 A1) stands as set forth above. The cancellation of claim 16 obviates a continued rejection on these grounds. Applicant's remarks have been fully considered, but are not found persuasive. The examiner believes that NAVARRE fairly discloses an element whose dimensions (in addition to surface figure) can be changed such that it has a resized perimeter. Clearly the region between the resistive elements can be expanded and contracted such that the perimeter may be resized as to length. Further, given the layout of the conductors, the element in Figure 1 is also *capable of* being trimmed along a vertical line at the leftmost extreme and rightmost extreme, while still being operable. The examiner recognizes that this would vary the resistance values of the resistive elements, but the rejection here is based upon anticipation of an element that is selectively "sizeable", based upon a feature inherent in the prior art. If NAVARRE teach away from anything, it is a *variation* of the resistance value of *each* resistance element that would give rise to uneven heating. Changing all of the resistance values would not be contrary to this teaching. In any event, the rejection is

Art Unit: 2872

not one of obviousness, but rather one of anticipation, based upon the inherent capability of the prior art.

The rejection of claims 18 – 22 as being anticipated by NAVARRE has been overcome by Applicant's amendment of claim 18, since the slits disclosed in the reference are not contained "wholly inwardly from the perimeter", as recited. Rather, the perimeter of the prior art element is crenulated so as to exclude the region of the slits.

Applicant's amendment of claim 1 is not sufficient to distinguish over the prior art, and the rejection of claims 1, 3 – 9, and 29 – 33 under 35 U.S.C. 103(a) as being unpatentable over NAVARRA, in view of VERRERIES HIRTZ SA stands as set forth above. The cancellation of claim 2 obviates its continued rejection on these grounds. For the reasons set forth above for claim 18, the amendment of claim 23 to depend from claim 18 is sufficient to overcome its previous rejection on these grounds. Applicant's remarks have been fully considered, but are not found persuasive, since as set forth above, the teachings of NAVARRA are not considered to be deficient in the manner relied upon by Applicant. Further, NAVARRA teaches overcoming the limitations of known heating devices whereby the latter are not adaptable to mirrors having compound curvatures. However, it is not the stated purpose of NAVARRA to provide a heating element adaptable only to mirrors of compound curvature. Rather, it is clear that NAVARRA seek to *extend* the capabilities of the prior art, and to provide a heater element adaptable to mirrors not only of planar surface figure and simple curvature, but *further* adaptable to mirrors of various shapes and compound curvature. Thus, it is

Art Unit: 2872

believed that one of ordinary skill would have found it obvious to employ the heating element of NAVARRA in arrangements where a mirror plate was provided, as in the case of VERRERIES HIRTZ, SA. While it is true that the heating element of NAVARRA is not "*universally* employed with a variety of differently-sized mirrors" [emphasis added], this language does not appear in the claims. The mirrors need only be of slightly different size, and the cut-outs of NAVARRA permit the conductors to be deformed, whereby the perimeter can be made to have a different size.

Applicant's remarks have been fully considered, but are not found persuasive. Thus, the rejection of claims 24, 25, 34, and 35 under 35 U.S.C. 103(a) as being unpatentable over NAVARRA and VERRERIES HIRTZ, and further in view of Holzer, et al stands as set forth above. For the reasons set forth above, the examiner does not regard NAVARRA to be deficient in the manner relied upon. Holzer, et al are relied upon for a suggestion to wrap the heater element around the mirror edges so as to provide a convenient means of electrical connection. The proposed combination did not involve resizing the foil of Holzer, et al, but rather upon wrapping the conductor of NAVARRA around the mirror's edge.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Reuben (U.S. Patent number 4, 940, 317) proposes a kit comprising a mirror heater element that can be cut to fit mirrors of various sizes.

Fritz Eichenauer GmbH & Co (DE 3042419 A1) disclose a mirror heating element having a perimeter that is sizable to conform to one of a plurality of mirrors.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Juba whose telephone number is (571) 272-2314. The examiner can normally be reached on Mon.-Fri. 9 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Drew Dunn whose number is (571) 272-2312 and who can be reached on Mon.- Thu., 9 - 5.

The centralized fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for *all* communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2800.


JOHN JUBA, JR.
PRIMARY EXAMINER
Art Unit 2872

March 8, 2005